CRO

COMPLETE GUIDE TO TRAUMA PHAR·MA·COL·O·GY

WWW.CROMEDICALGEAR.COM

TIVA

Total Intravenous Anaesthesia

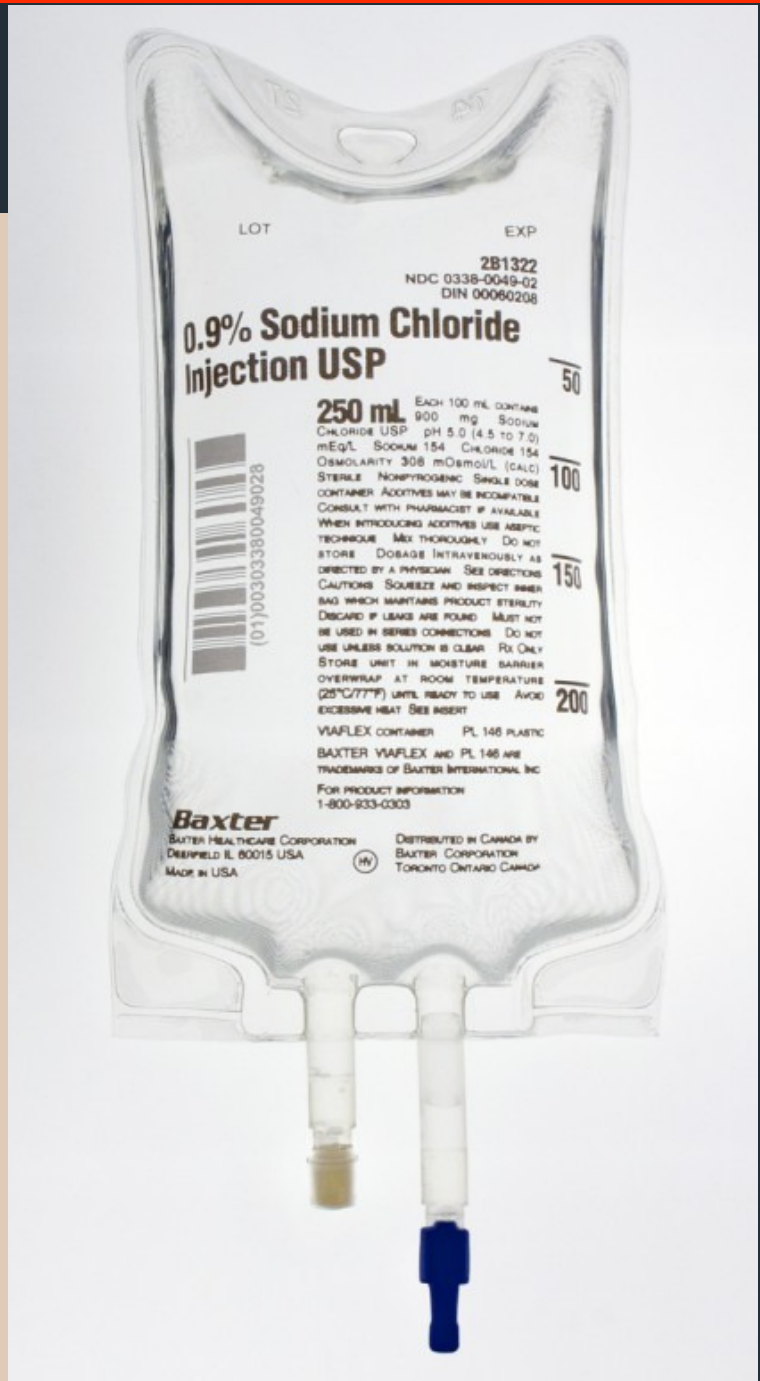
WHAT IS TIVA?

TIVA is a technique of anaesthesia which involves use of intravenous drugs to anaesthetize the patient without the use of inhalation agents. TIVA provides a smooth induction, with minimal coughing or hiccuping, with fast control of anesthetic depth and rapid emergence with minimal hangover.

How to administer TIVA using KETAMINE + VERSED

- **DOSAGE:** 750MG KETAMINE and 25MG MIDAZOLAM (VERSED) in 250 mL bag NACL
- **DURATION:** 4-5 hrs of Sedation

1. Start IV line on patient (with medication port)
2. Mix KETAMINE and VERSED into 250 mL bag NACL
3. ADMIN 2mg VERSED
4. ADMIN 10mg KETAMINE every 30-60 sec until Nystagmus
5. Drip at a rate of kg/2= ml hour

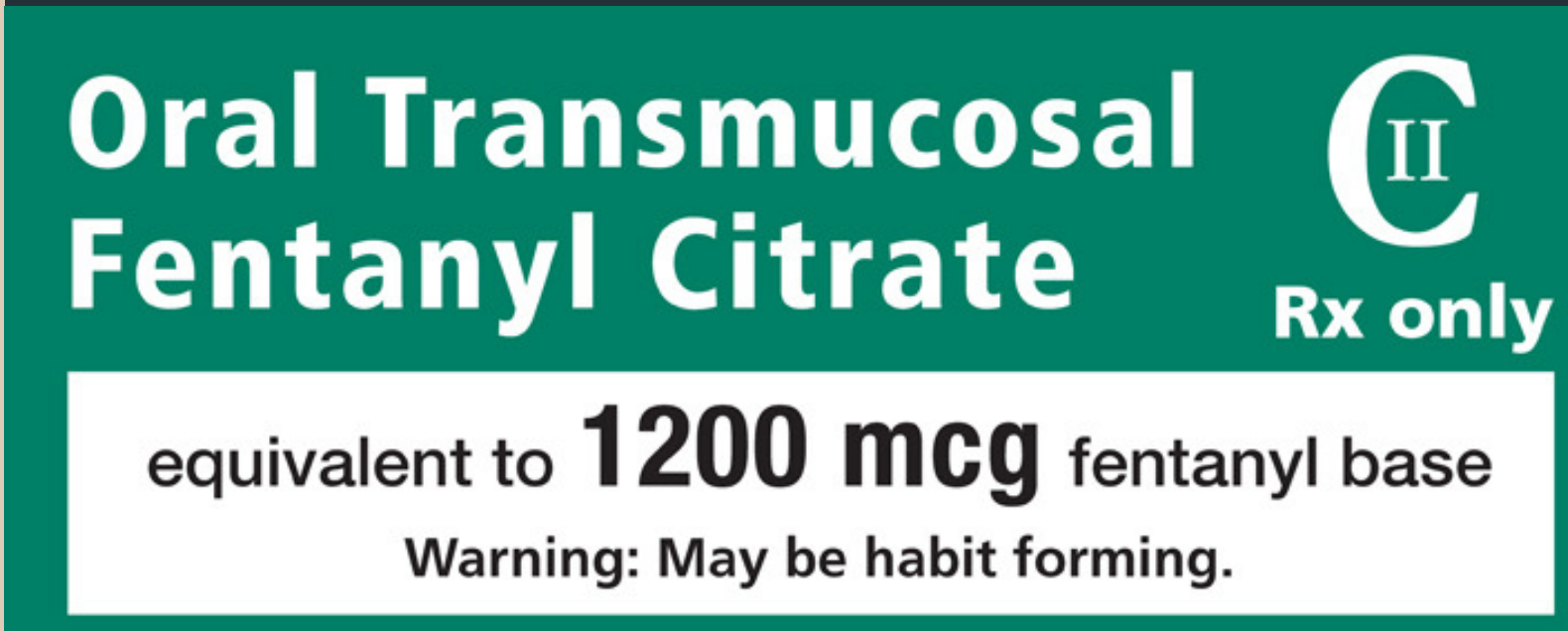


ANALGESICS

CRO

Fentanyl OTFC Lozenge

Description: Opioid analgesic, intended for oral transmucosal administration.
Indications: Conscious patients with severe pain, allergy to morphine
Contraindications: A known intolerance to opioids
Side Effects: Respiratory depression
Special Considerations: May need to secure to the patient using a rubber band
Treatment of Overdose: Manage airway, use opioid antagonist such as naloxone
Pharmacokinetics
Onset: 5-15 mins
Peak: 20-30 mins
Duration: 1-2 hours
Dosage: 800-1200 mcg over 15 mins, administered between cheek and gum



ANALGESICS

CRO

Fentanyl Citrate Injection

Description: Potent opioid agonist
Indications: Analgesia and sedation, patient with morphine allergies
Contraindications: A known intolerance to opioids
Special Considerations: A dose of 100 mcg (0.1 mg) is equivalent in analgesic activity to 10 mg of morphine
Treatment of Overdose: Manage airway, use opioid antagonist such as naloxone
Pharmacokinetics
Onset: 1.7 mins
Peak: 13 mins
Duration: 30-60 mins with terminal elimination half-life of 219 mins
Dosage: 50 to 100 mcg (0.05 to 0.1 mg) IM for pain, 2 to 20 mcg/kg IV for moderate sedation

NDC 0641-6030-01
℞ only
Fentanyl
Citrate Injection, USP
C II
2,500 mcg/50 mL
(50 mcg/mL) (0.05 mg/mL)
Preservative-free
FOR SLOW INTRAVENOUS USE
BY HOSPITAL PERSONNEL SPECIFICALLY TRAINED IN THE USE OF NARCOTIC ANALGESICS
50 mL Single Dose Vial
Single Dose–
Destroy Unused Contents.
Each mL contains fentanyl citrate equivalent to 50 mcg (0.05 mg) fentanyl base in Water for Injection, pH 4.0-7.5; sodium hydroxide and/or hydrochloric acid added, if needed, for pH adjustment. Contains no preservative.
Usual Dosage: Read package insert carefully for complete prescribing information.
PROTECT FROM LIGHT: Keep covered in carton until time of use.
Store at 20°-25°C (68°-77°F) [See USP Controlled Room Temperature].
(01)00300641603014
Lot:
Exp.:

CRO

ANALGESICS

Ketamine HCL

Description: Rapid-acting general sedative and analgesic
Indications: Procedural analgesia
Contraindications: In patients that a significant elevation of blood pressure would constitute a serious hazard, hypersensitivity to the drug
Side Effects: Respiratory depression, Hypersalivation, Increased ICP, Emergence reactions, Increased BP
Pharmacokinetics
Onset: Rapid
Peak: IV- 1 min, IM-3-4 mins
Duration: IV-5-10 mins, IM-12-25 mins
Dosage: Initial dose: 20 mg IV/IO slowly over 1 minute, Maintenance: 20 mg every 30 to 60 seconds until nystagmus/maximum dose of 100 mg reached

5 mL Multi-dose
Ketamine HCl
Injection, USP
500 mg per 5 mL*
(100 mg/mL)
CONCENTRATE
INTRAMUSCULAR/Slow INTRAVENOUS USE
DILUTE BEFORE INTRAVENOUS USE
Hospira, Inc., Lake Forest, IL 60045 USA
Rx only
NDC 0409-2051-05
*Each mL contains Ketamine Hydrochloride equivalent to 100 mg of ketamine and 0.1 mg benzethonium chloride added as a preservative. pH 3.5 to 5.5. Color of solution may vary from colorless to very slightly yellowish and may darken upon prolonged exposure to light. This darkening does not affect potency. Do not use if precipitate appears. Usual Dosage: See insert.
Store at 20 to 25°C (68 to 77°F) [see USP Controlled Room Temperature].
Protect from light.
Hospira
RL-3760

ANALGESICS

CRO

Morphine Sulfate

Description: An opium alkaloid used to relieve pain, to sedate, and to reduce anxiety.
Indications: Severe pain
Contraindications: Sulfa hypersensitivity, head injury, hypotension
Side Effects: Respiratory depression, nausea and vomiting, bradycardia
Treatment of Overdose: Opioid antagonist, airway management
Pharmacokinetics
Onset: IV-Rapid, IM-5-30 mins
Peak: IV-18 mins, IM-30-60 mins
Duration: 3-5 hours
Dosage: 5 mg IV or IM, Slow IVP over 4 to 5 minutes, additional dosing every 10 minutes up to 30 mg

1 mL Carpuject®
NDC 0409-1762-30
RL-0119 (11/04)
Sterile Cartridge Unit with Luer Lock
Morphine Sulfate Injection, USP
℞ only
CII
(01) 0 030409 176230 5
2 mg/mL
Warning: May be habit forming.
PROTECT FROM LIGHT.
Hospira, Inc., Lake Forest, IL 60045 USA
Hospira

CR

ANALGESICS

Acetaminophen (Tylenol®, Ofirmev®)

Description: Analgesic and antipyretic
Indications: Mild pain, fever
Contraindications: Liver disease
Side Effects: Rash, Urticaria
Pharmacokinetics
Onset: 45 mins
Peak: 1-3 hours
Duration: 4-6 hours
Dosage: 325 - 650 mg PO, q 4 to 6 hrs, 1 gm PO / IV every 6 to 8 hrs

Lot
Exp

OFIRMEV™
(acetaminophen) injection
1000 mg/100 mL
(10 mg/mL)

For Intravenous Use Only
Single Use Vial. Doses less than 1000 mg require aseptic transfer to a separate container prior to dispensing. Discard unused portion.
Rx only

NDC 43825-102-01

Store at controlled room temperature, 20°C to 25°C (68°F to 77°F). Do not refrigerate or freeze.

Each 100 mL contains 1000 mg acetaminophen, USP, 3850 mg mannitol, USP, 25 mg cysteine hydrochloride, monohydrate, USP, 10.4 mg dibasic sodium phosphate, anhydrous, USP.

pH may have been adjusted with hydrochloric acid and/or sodium hydroxide.

See Package Insert for recommended dosage and Full Prescribing Information.

Manufactured for:
Cadence Pharmaceuticals, Inc., San Diego, CA 92130

Patented: US 6,028,222; US 6,992,218 07-09-59-586 1A1337

(acetaminophen) injection 1000 mg/100 mL (10 mg/mL) OFIRMEV™

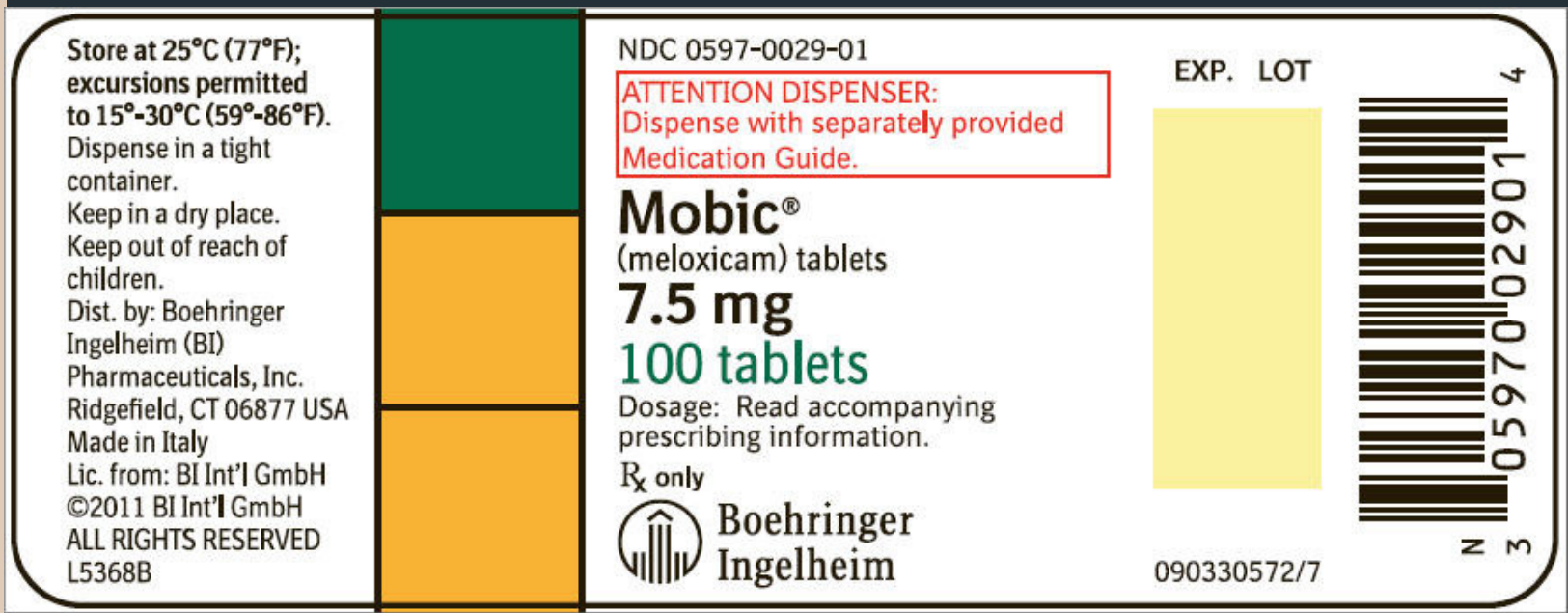
cadence PHARMACEUTICALS

ANALGESICS

CRO

Meloxicam (Mobic®)

Description: Nonsteroidal anti-Inflammatory drug (NSAID)
Indications: Mild to moderate pain relief
Contraindications: Allergy to NSAIDs
Side Effects: Anaphylactic reactions
Pharmacokinetics
Onset: 30 mins
Peak: 4-5 hours
Duration: 15-20 hours
Dosage: 7.5-15 mg QD



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ANALGESICS

Ketorolac (Toradol®)

Description: Nonsteroidal anti-inflammatory drug (NSAID)
Indications: For treatment of moderate to severe pain
Contraindications: NSAID allergy, stomach ulcer, bleeding disorders
Side Effects: Allergic reactions, dyspepsia, abdominal pain
Pharmacokinetics
Onset: 30 mins
Duration: 5-6 hours
Dosage: 30 mg IM/IV every 6 hours as needed, Maximum dose: 120 mg/day

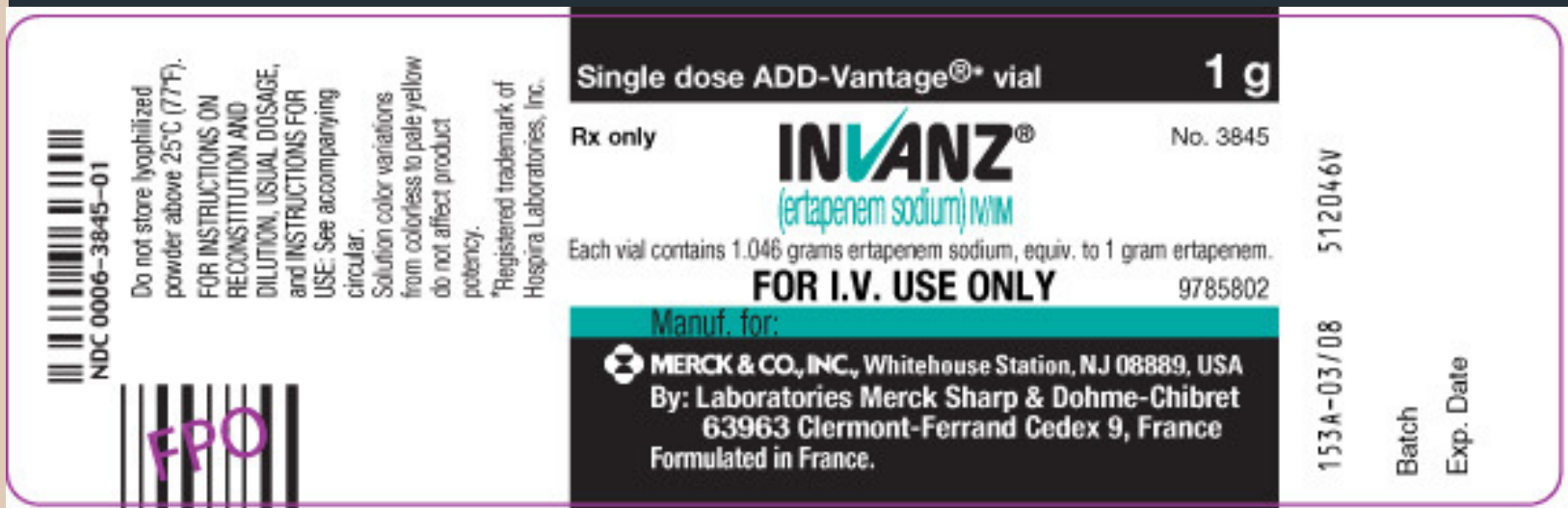
NDC 63323-161-01 160101
KETOROLAC TROMETHAMINE
INJECTION, USP
15 mg/mL
FOR INTRAVENOUS OR INTRAMUSCULAR USE
Rx only
1 mL Single Dose Vial
Sterile
Each mL contains: 15 mg ketorolac tromethamine, 10% (w/v) alcohol (USP), 6.68 mg sodium chloride, 1 mg citric acid, anhydrous, sterile water for injection; pH adjusted to approximately 7.4 with sodium hydroxide or hydrochloric acid.
Usual Dosage: See insert.
Store at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature].
PROTECT FROM LIGHT.
Retain in carton until time of use.
Vial stoppers do not contain natural rubber latex.
APP
APP Pharmaceuticals, LLC
Schaumburg, IL 60173
42640C

ANTIBIOTICS

CRO

Ertapenem IV (Invanz®)

Description: Carbapenem antibiotic
Indications: Penetrating trauma, Complicated UTI, Complicated skin infections, Abdominal Pain, Cellulitis, Crush Syndrome, Joint Infection, Sepsis/Septic Shock
Contraindications: Penicillin allergy, Anaphylactic reactions to beta-lactam antibiotics.
Side Effects: Diarrhea, Infused vein phlebitis/ thrombophlebitis, Nausea and vomiting
Pharmacokinetics
Duration: 4 hour half-life
Dosage: 1 GM over 30 mins once daily for max of 14 days or 7 days IM injection

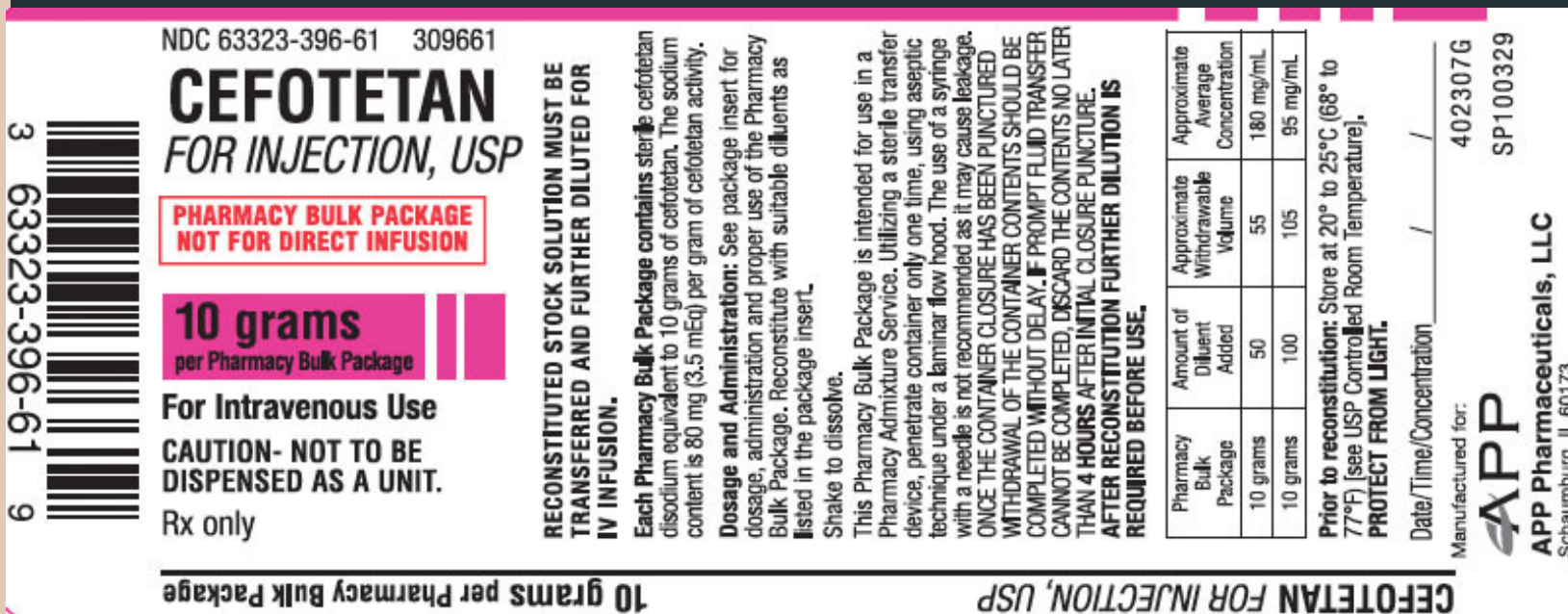

NDC 0006-3845-01
Do not store lyophilized powder above 25°C (77°F). FOR INSTRUCTIONS ON RECONSTITUTION AND DILUTION, USUAL DOSAGE, and INSTRUCTIONS FOR USE: See accompanying circular.
Solution color variations from colorless to pale yellow do not affect product potency.
*Registered trademark of Hospira Laboratories, Inc.
FPO
Single dose ADD-Vantage®* vial
1 g
Rx only
INVANZ®
No. 3845
(ertapenem sodium) IV/IM
Each vial contains 1.046 grams ertapenem sodium, equiv. to 1 gram ertapenem.
FOR I.V. USE ONLY
9785802
Manuf. for:
MERCK & CO., INC., Whitehouse Station, NJ 08889, USA
By: Laboratories Merck Sharp & Dohme-Chibret
63963 Clermont-Ferrand Cedex 9, France
Formulated in France.
153A-03/08
512046V
Batch
Exp. Date

CR

ANTIBIOTICS

Cefotetan (Cefotan®)

Description: Second generation cephalosporin
Indications: Abdominal Pain, Dental Pain, Sepsis/Septic Shock
Contraindications: History of cephalosporin associated hemolytic anemia or hypersensitivity
Side Effects: Diarrhea, Hemolytic anemia, Anaphylaxis
Pharmacokinetics
Dosage: 2 gm IV q 12 hrs (Reconstitute and administer by IV infusion over 3-5 minutes) or 2 gm IM q 12 hrs


NDC 63323-396-61 309661
CEFOTETAN
FOR INJECTION, USP
PHARMACY BULK PACKAGE
NOT FOR DIRECT INFUSION
10 grams
per Pharmacy Bulk Package
For Intravenous Use
CAUTION- NOT TO BE DISPENSED AS A UNIT.
Rx only
3 63323-396-61 9
RECONSTITUTED STOCK SOLUTION MUST BE TRANSFERRED AND FURTHER DILUTED FOR IV INFUSION.
Each Pharmacy Bulk Package contains sterile cefotetan disodium equivalent to 10 grams of cefotetan. The sodium content is 80 mg (3.5 mEq) per gram of cefotetan activity.
Dosage and Administration: See package insert for dosage, administration and proper use of the Pharmacy Bulk Package. Reconstitute with suitable diluents as listed in the package insert.
Shake to dissolve.
This Pharmacy Bulk Package is intended for use in a Pharmacy Admixture Service. Utilizing a sterile transfer device, penetrate container only one time, using aseptic technique under a laminar flow hood. The use of a syringe with a needle is not recommended as it may cause leakage.
ONCE THE CONTAINER CLOSURE HAS BEEN PUNCTURED WITHDRAWAL OF THE CONTAINER CONTENTS SHOULD BE COMPLETED WITHOUT DELAY. IF PROMPT FLUID TRANSFER CANNOT BE COMPLETED, DISCARD THE CONTENTS NO LATER THAN 4 HOURS AFTER INITIAL CLOSURE PUNCTURE.
AFTER RECONSTITUTION FURTHER DILUTION IS REQUIRED BEFORE USE.
Pharmacy Bulk Package | Amount of Diluent Added | Approximate Withdrawable Volume | Approximate Average Concentration
10 grams | 50 | 55 | 180 mg/mL
10 grams | 100 | 105 | 95 mg/mL
Prior to reconstitution: Store at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature].
PROTECT FROM LIGHT.
Date/Time/Concentration ____/____/____
4023076
SP100329
Manufactured for:
APP
APP Pharmaceuticals, LLC
10 grams per Pharmacy Bulk Package
CEFOTETAN FOR INJECTION, USP

ANTIBIOTICS

CR

Ceftriaxone Sodium (Rocephin®)

Description: 3rd generation cephalosporin
Indications: Abdominal Pain, Dental Pain, Bronchitis/Pneumonia, Flank Pain, Head/Neck Infection, Joint Infection, Meningitis, Sepsis/Septic Shock, UTI, Infection with penetrating trauma
Contraindications: Cephalosporin sensitivity or hemolytic anemia
Side Effects: Nausea and vomiting, Diarrhea, Abdominal cramps, Urticaria
Pharmacokinetics
Duration: 5-10 hour half-life
Dosage: 1 to 2 gm IV/IM every 24 hours. For IV infuse over 30 mins

Each vial contains: Ceftriaxone sodium USP powder equivalent to 500 mg ceftriaxone.
For I.M. Administration: Reconstitute with 1 mL 1% Lidocaine Hydrochloride Injection (USP) or Sterile Water for Injection (USP). Each 1 mL of solution contains approximately 350 mg equivalent of ceftriaxone.
For I.V. Administration: See package insert.
USUAL DOSAGE: See package insert.
Storage Prior to Reconstitution: Store powder at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature].
Protect From Light.
Storage After Reconstitution: See package insert.
Code No.: 78/MD/AP/96/F/B/R
Made in India
Single-Use Vial
Rx only
ceftriaxone for injection, USP
For I.M. or I.V. Use
500 mg/vial
Distributed by
Pfizer Labs
Division of Pfizer Inc, NY, NY 10017
10300694481039
P1405092
Lot
EXP

ANTIBIOTICS

Moxifloxacin (Avelox®)

Description: 4th generation quinolone
Indications: Barotrauma, Bronchitis/Pneumonia, Cellulitis, Ear Infection, Epistaxis, Flank Pain, Gastroenteritis, Ingrown Toenail, Meningitis, Subungual Hematoma
Contraindications: Hypersensitivity to fluroquinolones, patients under 18 yo
Side Effects: Nausea, Diarrhea, Photosensitivity
Dosage: 400 mg/day, PO/IV, IV infusion over 60 mins

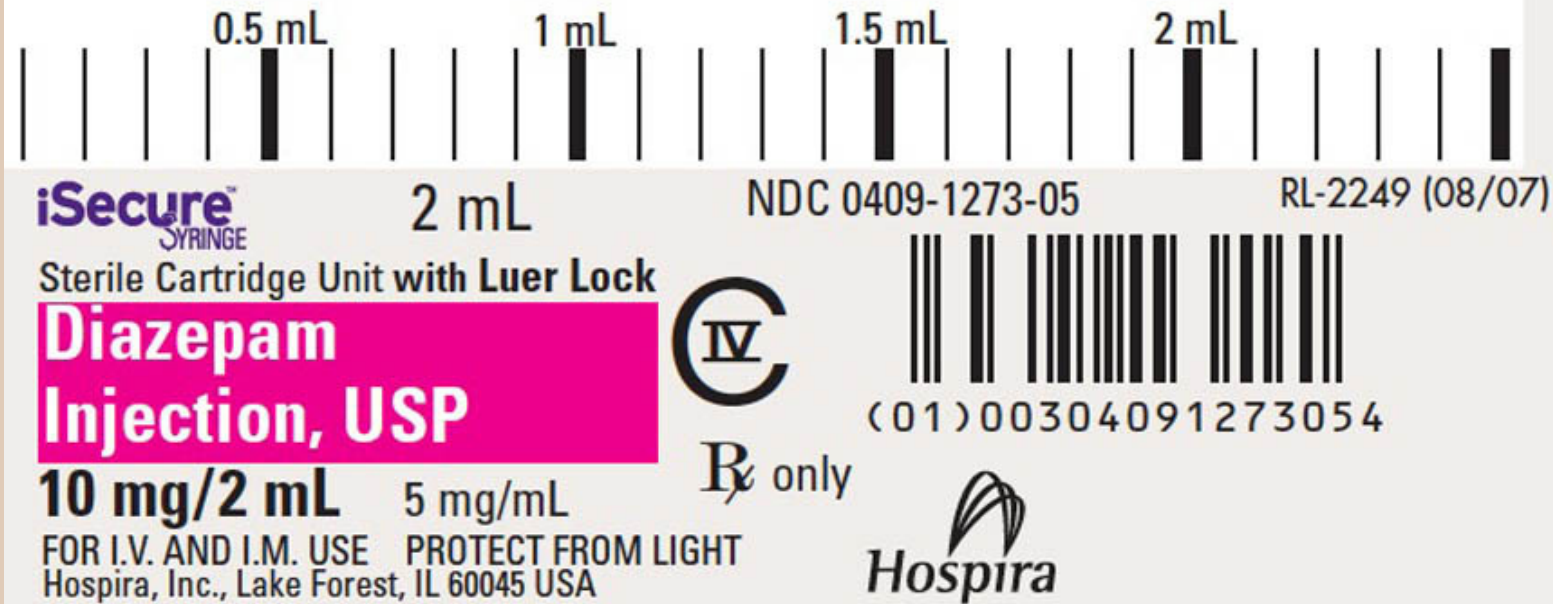
LOT:
EXP:
L3B4
DESCRIPTION: Each tablet contains moxifloxacin hydrochloride equivalent to 400 mg of moxifloxacin.
DOSAGE: See accompanying literature for complete information on dosage and administration.
RECOMMENDED STORAGE: Store at 25°C (77°F); excursions permitted to 15–30°C (59–86°F) [see USP Controlled Room Temperature]. Avoid high humidity.
08917534
NDC 0085-1733-01
AVELOX®
(moxifloxacin hydrochloride)
Equivalent to
400 mg moxifloxacin
Attention Pharmacist: Dispense the accompanying Medication Guide to each patient.
30 Tablets
℞ Only
AVELOX is a registered trademark of Bayer Aktiengesellschaft and is used under license by Schering Corporation.
Manufactured by: Bayer HealthCare Pharmaceuticals Inc.
Wayne, NJ 07470, Made in Germany
Distributed by:
Schering Corporation, Kenilworth, NJ 07033
N 3 0085-1733-01 1
08918395, R.3 1/09 14271 Printed in USA
©2009 Bayer HealthCare Pharmaceuticals Inc.

BENZODIAZEPINES

CR

Diazepam (Valium®)

Description: CNS depressant, anticonvulsant/sedative
Indications: Anxiety, Seizures/Status epilepticus, Relaxation of skeletal muscles, Chemical agent/ Organophosphate poisoning
Contraindications: Decreased BP, Head Injury, Acute narrow angle glaucoma
Side Effects: Decreased BP, Decreased respirations, Nausea and vomiting
Pharmacokinetics
Onset: 1-5 mins
Duration: 15- 60 mins
Dosage: Status Epilepticus: 5 to 10 mg, IV slow push
Acute anxiety: 5 to 15 mg, PO or IV slow push,
Relaxation of skeletal muscle: 5 to 15 mg, PO or IV slow push
Chemical exposure: 10 mg autoinjector, IM



CRO

BENZODIAZEPINES

Midazolam (Versed®)

Description: Benzodiazepine
Indications: Sedation in combination with analgesia to perform brief procedures, Treatment of active seizures, Sedation of agitated patients
Contraindications: Acute narrow angle glaucoma
Side Effects: Laryngospasm, bronchospasm, wheezing, respiratory depression
Pharmacokinetics
Onset: 1 to 5 mins
Peak: 5-7 mins
Duration: 20-30 mins
Dosage: Seizure Control: 5 to 10 mg IM/IV/IO
Sedation: 1 mg IV slowly, q 2 to 3 minutes to effect or maximum adult dose of 10 mg

NDC 65293-413-10
MIDAZOLAM
INJECTION, USP
*10 mg/2 mL
(5 mg/mL)
IV
For IM or IV Use Only
2 mL Vial
Rx only
Sterile
*Each mL contains: midazolam hydrochloride equivalent to 5 mg midazolam compounded with 0.8% sodium chloride, 0.01% edetate disodium, with 1% benzyl alcohol as preservative and pH adjusted to 3 to 3.6 with hydrochloric acid and, if necessary, sodium hydroxide.
USUAL DOSAGE: See insert.
Store at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature].
This container closure is not made with natural rubber latex.
Marketed by: The Medicines Company
Parsippany, NJ 07054
42908
65293-413-10 5

ANTIFIBRINOLYTIC

CR

Tranexamic Acid (TXA)

Description: Antifibrinolytic
Indications: Patients that present with penetrating torso trauma, amputation, or severe blood loss
Contraindications: Subarachnoid hemorrhage
Side Effects: Nausea and Vomiting, Diarrhea, Eye pain, Hypotension
Special Considerations: Do not give later than 3 hours after injury
Pharmacokinetics
Duration: 8 hours
Dosage: 1 gm IV

NDC 0517-0960-01
TRANEXAMIC ACID
INJECTION
1000 mg/10 mL (100 mg/mL)

FOR INTRAVENOUS USE ONLY

10 mL SINGLE DOSE VIAL

Rx only AMERICAN REGENT, INC.

Store at 20° to 25°C (68° to 77°F); excursions permitted to 15° to 30°C (59° to 86°F) (See USP Controlled Room Temperature).

DISCARD UNUSED PORTION

Usual Dosage:
See Package Insert.

RN1057-00

(01)10305170960015

LOT:

EXP:

ANTIEMETIC

CRO

Promethazine HCl (Phenergan®)

Description: Phenothiazine class drug, an H1 blocker
Indications: Prevention of nausea and vomiting
Contraindications: Children < 2 years old, Comatose states, Asthma
Side Effects: Drowsiness, sedation, Anticholinergic effects
Pharmacokinetics
Onset: 3-5 mins
Duration: 2-8 hours
Dosage: Oral Dose: Nausea/Vomiting- 25 mg q 4 hours, For Motion Sickness- 25 mg bid
IM Dose: Nausea/vomiting: 12.5 - 25 mg, q 4 - 6 hrs PRN, For Motion Sickness- 12.5-25 mg, repeat PRN up to 4 times/day

NDC 0703-2191-04 Rx only

Promethazine Hydrochloride Injection, USP

25 mg/mL

FOR DEEP INTRAMUSCULAR OR INTRAVENOUS USE

1 mL Single Dose Vials
25 Vials

Each mL contains: Promethazine hydrochloride 25 mg, edetate disodium 0.1 mg, calcium chloride 0.04 mg, sodium metabisulfite 0.25 mg and phenol 5 mg in water for injection. pH 4.0–5.5; buffered with acetic acid-sodium acetate. Sealed under nitrogen.

Usual Dosage: See Package Insert.

PROTECT FROM LIGHT: Keep covered in carton until time of use.

Store at room temperature 20°–25°C (68°–77°F) [See USP Controlled Room Temperature].

Teva Pharmaceuticals USA
Sellersville, PA 18960

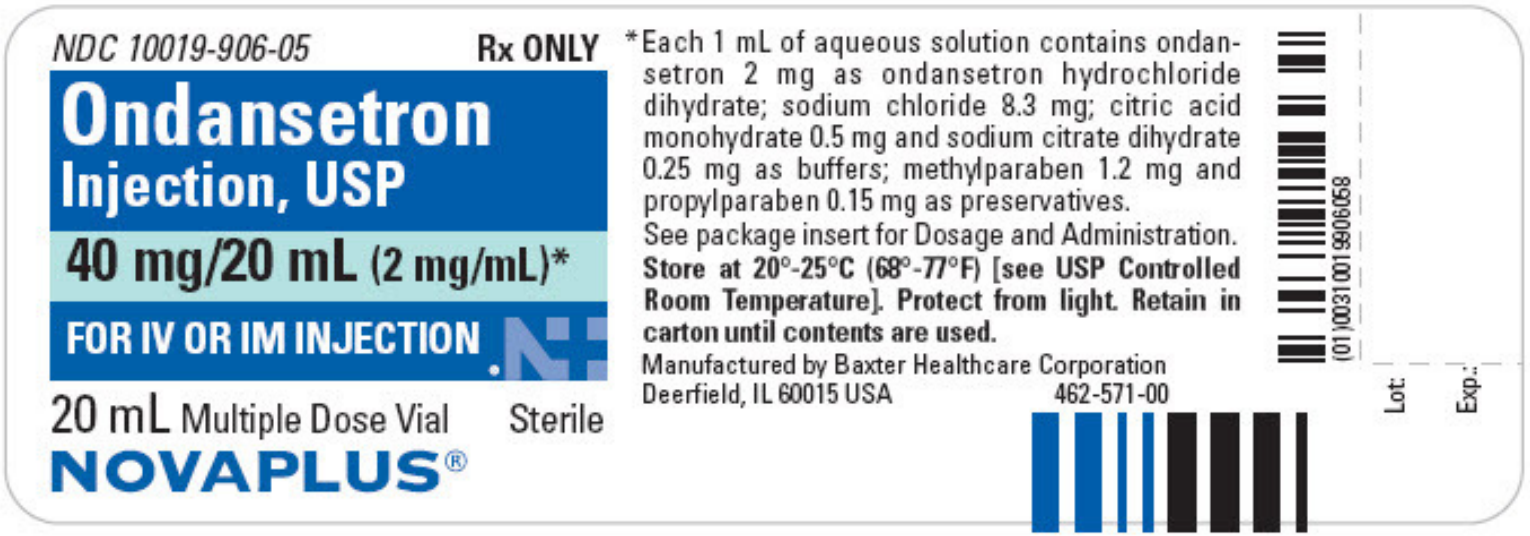
Rev. A 11/2011

Y10765

ANTIEMETIC

Ondansetron (Zofran®)

Description: Antiemetic
Indications: Prevention of Nausea and Vomiting
Pharmacokinetics
Dosage: Oral: 4-8 mg PO tid for up to 48 hours
Parenteral: 4 mg IV over 2 to 5 minutes or 4 mg IM tid

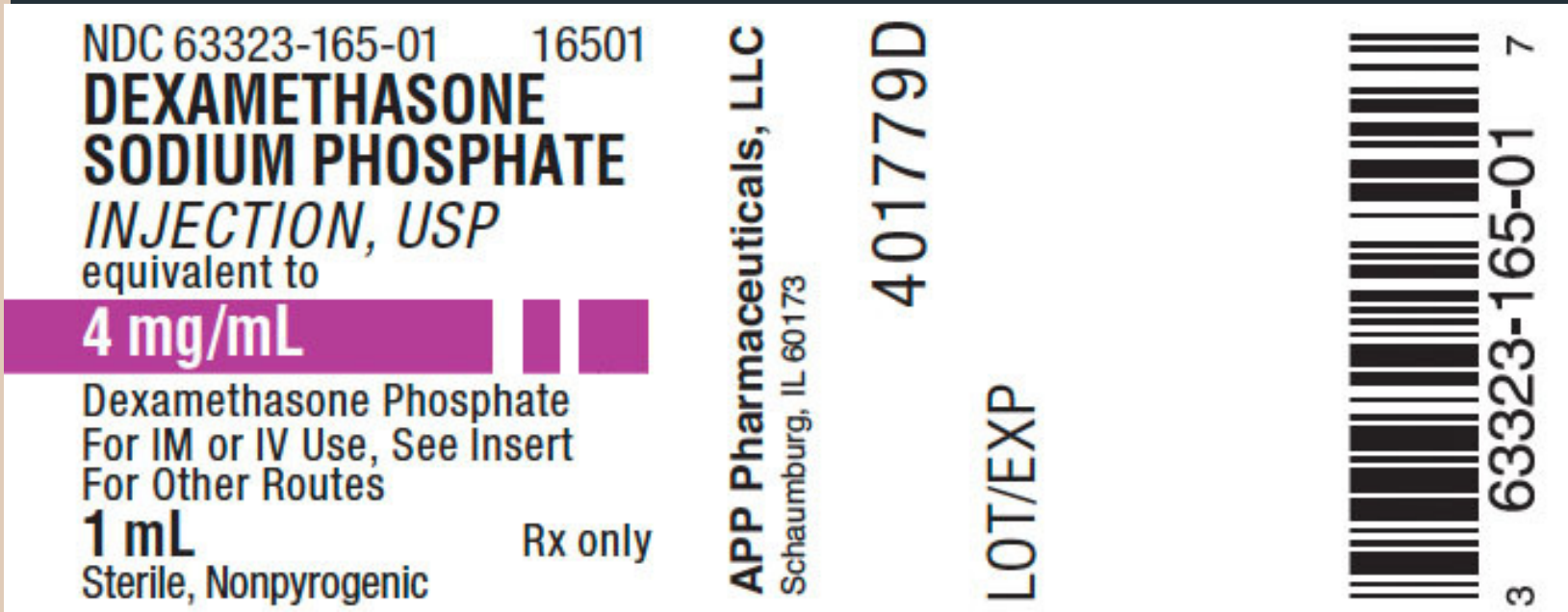

NDC 10019-906-05
Rx ONLY
Ondansetron
Injection, USP
40 mg/20 mL (2 mg/mL)*
FOR IV OR IM INJECTION
20 mL Multiple Dose Vial
Sterile
NOVAPLUS®
*Each 1 mL of aqueous solution contains ondansetron 2 mg as ondansetron hydrochloride dihydrate; sodium chloride 8.3 mg; citric acid monohydrate 0.5 mg and sodium citrate dihydrate 0.25 mg as buffers; methylparaben 1.2 mg and propylparaben 0.15 mg as preservatives.
See package insert for Dosage and Administration.
Store at 20°-25°C (68°-77°F) [see USP Controlled Room Temperature]. Protect from light. Retain in carton until contents are used.
Manufactured by Baxter Healthcare Corporation
Deerfield, IL 60015 USA
462-571-00
(01)00310019906058
Lot:
Exp.:

CR

GLUCOCORTICOID

Dexamethasone (Decadron®)

Description: Parenteral steroid (glucocorticoid)
Indications: Altitude Illness, Anaphylaxis, Blast Injury, Sepsis/septic Shock, Smoke Inhalation
Contraindications: Use caution in patients with diabetes, hypertension, and ulcers
Side Effects: Various skin eruptions, Delayed wound healing
Special Considerations: Administer Decadron every 6 hours until descent complete
Pharmacokinetics
Dosage: Blast injury: 10 mg IV/IO/IM/PO QD x 5 days for hearing loss
All other conditions: 4 mg IV/IM/PO q 6 hours



ANTAGONISTS

CRO

Naloxone (Narcan®)

Description: Narcotic antagonist
Indications: Narcotic induced respiratory depression
Side Effects: Withdrawal symptoms precipitated
Pharmacokinetics
Onset: 1-2 mins
Duration: 20-40 mins
Dosage: 0.4 to 2 mg IV (IM or ETT optional)
Repeat q 2 to 3 min PRN

1 mL **Carpuject®**
Sterile Cartridge Unit with Luer Lock
Naloxone Hydrochloride Inj., USP
0.4 mg/mL
℞ only

NDC 0409-1782-69 RL-0551 (9/04)

(01) 0 030409 178269 3

FOR IV, IM, OR SC USE **PROTECT FROM LIGHT**
Hospira, Inc., Lake Forest, IL 60045 USA

Hospira

ANTAGONISTS

CRO

Flumazenil (Romazicon®)

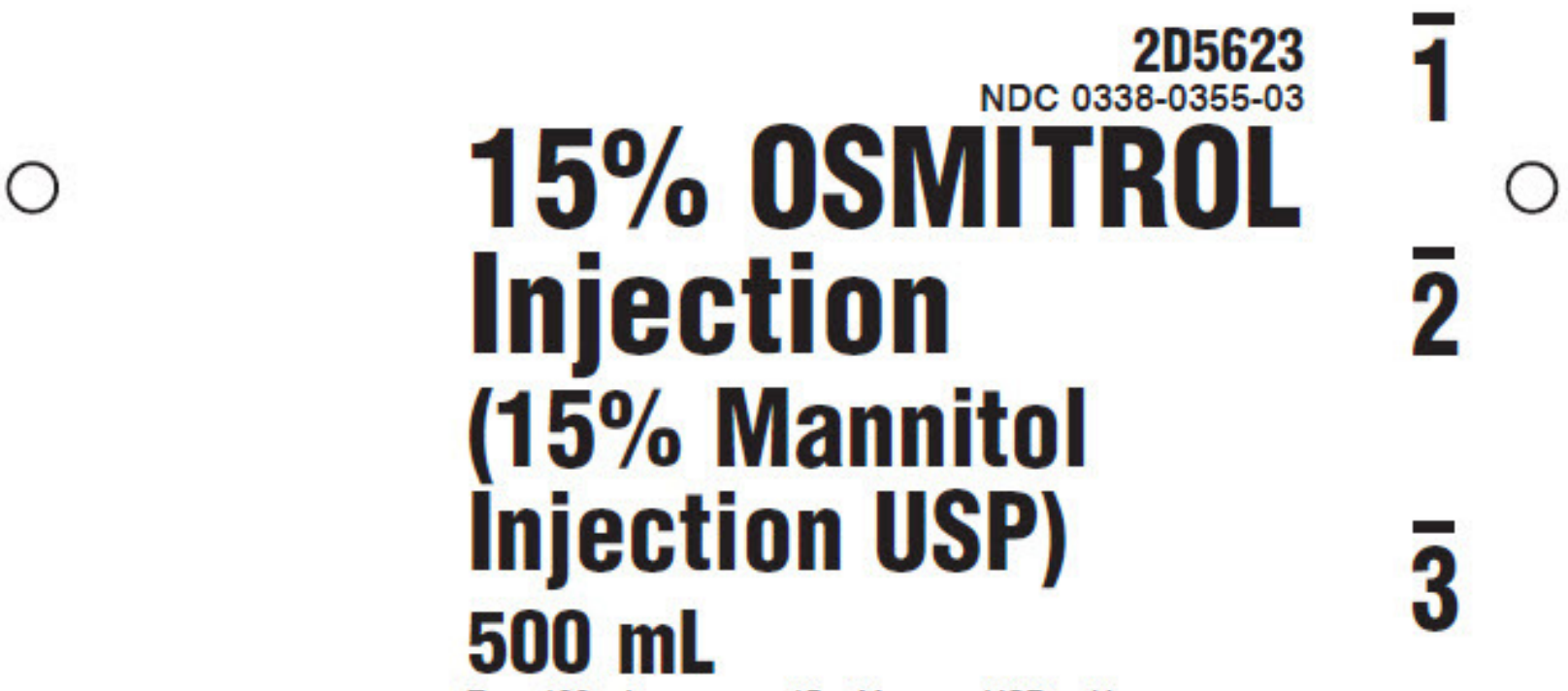
Description: Benzodiazepine antagonist
Indications: Benzodiazepine overdose, reversal of sedation/anesthesia
Contraindications: Patients who have been given benzodiazepines to control status epileptics, Patients with a cyclic antidepressant overdose
Side Effects: Withdrawal symptoms and seizures in Benzodiazepine dependent patient
Pharmacokinetics
Onset: 30 secs
Duration: 30-60 mins
Dosage: 0.2 mg IV initial dose (over 30 seconds)
May increase to 0.5 mg for additional doses
Repeat q 30 seconds PRN to desired effect, or to max dose of 3 mg

NDC 63323-424-05 402405
FLUMAZENIL
INJECTION, USP
0.5 mg/5 mL
(0.1 mg/mL)
Sterile
FOR IV USE ONLY
Rx only
5 mL
Multiple Dose Vial
Each mL contains: 0.1 mg flumazenil compounded with 1.8 mg methylparaben, 0.2 mg propylparaben, 0.9% sodium chloride, 0.01% edetate disodium, and 0.01% acetic acid; the pH is adjusted to approximately 3.8 to 4.3 with hydrochloric acid and/or, if necessary, sodium hydroxide.
Usual Dosage: See insert.
Store at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature].
Vial stoppers do not contain natural rubber latex.
APP
APP Pharmaceuticals, LLC
Schaumburg, IL 60173
402172B
LOT/EXP
3 63323-424-05 3

DIURETICS

Mannitol (Osmotrol®)

Description: Osmotic diuretic
Indications: Crush Syndrome
Contraindications: Anuria, Hypotension, Pulmonary edema, Hypovolemia
Side Effects: Hypotension (excessive diuresis), Transient volume overload
Special Considerations: Always use an inline filter
Pharmacokinetics
Onset: 1-3 hours
Duration: 1-6 hours
Dosage: 1 to 2 gm/kg at the rate of 5 gm/hr



ANTIHISTAMINE

CRO

Diphenhydramine HCl (Benadryl®)

Description: Antihistamine
Indications: Allergic Rhinitis/Hay Fever/Cold Like Symptoms, Anaphylactic Reaction, Contact Dermatitis, Envenomation
Side Effects: Sedation
Pharmacokinetics
Onset: 15 mins
Peak: 1-4 hours
Duration: 4-6 hours
Dosage: 25 to 50 mg IM/IV/PO, q 6 hours
Maximum Dose is 400 mg/day

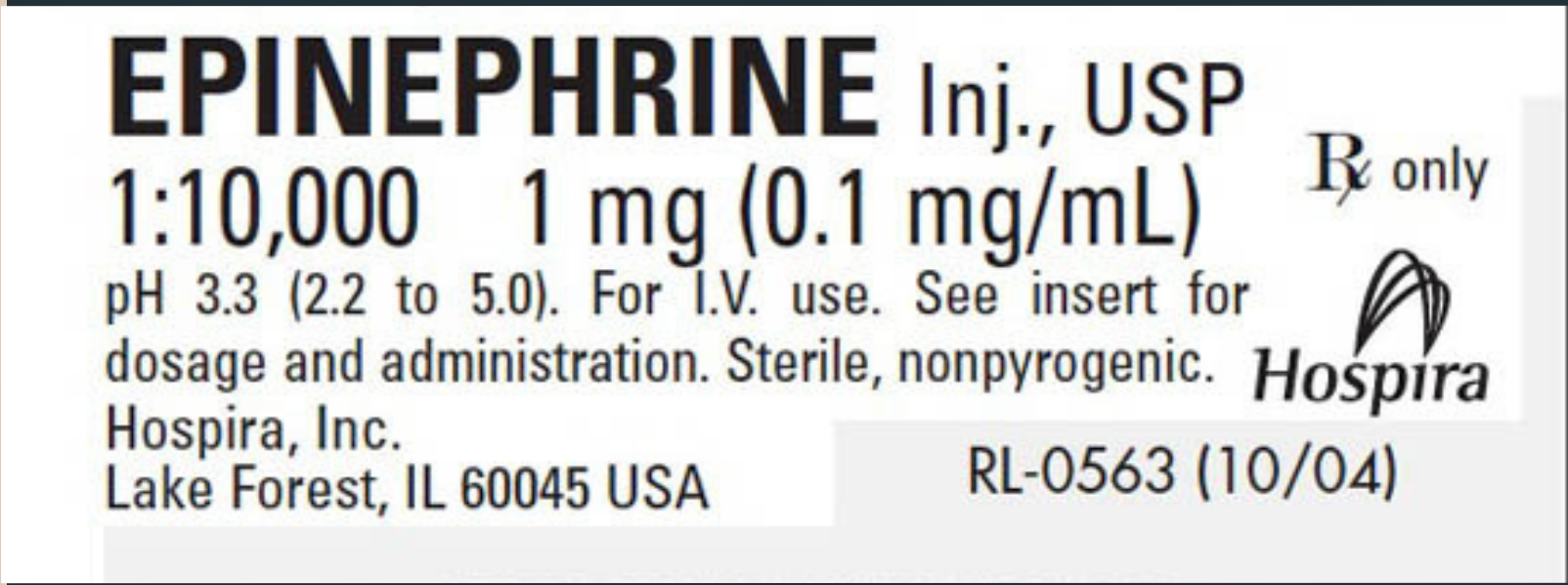
NDC 63323-664-01
660401
DiphenhydrAMINE HYDROCHLORIDE
INJECTION, USP
50 mg/mL
HIGH POTENCY
For IM or IV Use
Rx only
1mL in a 2mL Single Dose Vial
Sterile, Pyrogen-Free
Each mL contains: Diphenhydramine hydrochloride, 50 mg and Water for Injection, q.s. Sodium hydroxide and/or hydrochloric acid added, if needed, for pH adjustment.
Usual Dosage: 10 to 50 mg intravenous or intramuscular.
See enclosed package insert for full prescribing information.
Store at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature].
Protect from freezing and light.
Vial stoppers do not contain natural rubber latex.
APP
APP Pharmaceuticals, LLC
Schaumburg, IL 60173
42698C

CRO

ADRENERGIC AGONIST

Epinephrine (EpiPen®)

Description: Alpha and Beta Adrenergic Sympathomimetic
Indications: Anaphylactic Reaction, Asthma (Reactive Airway Disease), Sepsis/Septic Shock, Neurogenic/Spinal Shock
Contraindications: 1:1,000 Epinephrine is not given IV
Pharmacokinetics
Onset: 5-10 mins
Peak: 20 mins
Duration: 1-4 hours
Dosage: Anaphylaxis: 0.3 to 0.5 mg (0.3 to 0.5 ml of 1:1,000 dilution) IM or 0.3 to 0.5 mg (3 to 5 ml of 1:10,000 dilution) IV
Allergic reaction: 0.3 to 0.5 mg (0.3 to 0.5 ml of 1:1,000 dilution) SQ/IM
Asthma: 0.3 to 0.5 mg (0.3 to 0.5 ml of 1:1,000 dilution) SQ/IM


EPINEPHRINE Inj., USP
1:10,000 1 mg (0.1 mg/mL)
℞ only
pH 3.3 (2.2 to 5.0). For I.V. use. See insert for dosage and administration. Sterile, nonpyrogenic.
Hospira
Hospira, Inc.
Lake Forest, IL 60045 USA
RL-0563 (10/04)

CR

PARALYTIC

Vecuronium (Norcuron®)

Description: Neuromuscular Blocking Agent
Indications: Used as part of general anesthesia to provide skeletal muscle relaxation during surgery or mechanical ventilation. It is also used to help with endotracheal intubation; however, suxamethonium (succinylcholine) is generally preferred.
Contraindications: Hypersensitivity to vecuronium or bromides.
Pharmacokinetics
Onset: < 1 min
Peak: 4 mins
Duration: 15-30 mins
Dosage: • Load: 0.08-0.1 mg/kg IVP over 60 sec OR
• 0.04-0.06 mg/kg IVP if following succinylcholine, PLUS
• Maintenance: 0.01-0.015 mg/kg IVP 20-45min post initial PRN

NDC 0703-2925-03 **Rx only**

Vecuronium
Bromide for Injection
20 mg*

*1 mg/mL when reconstituted to 20 mL
For IV Use Only
Sterile

10 x 20 mL Vials

When reconstituted with 20 mL of sterile water for injection, USP, the resultant solution will contain per mL: vecuronium bromide, 1 mg; citric acid anhydrous, USP, 2.075 mg; sodium phosphate dibasic anhydrous, USP, 1.625 mg; mannitol, USP, (to adjust tonicity) 9.7 mg. pH is adjusted with sodium hydroxide and/or phosphoric acid if necessary. pH: 3.5–4.5. When reconstituted with bacteriostatic water for injection, USP: **CONTAINS BENZYL ALCOHOL, WHICH IS NOT FOR USE IN NEWBORNS.** Use within 5 days. May be stored at room temperature or refrigerated. OR If reconstituted with sterile water for injection, USP, or other compatible IV solutions:
Refrigerate vial.
Use within 24 hours.
Single use only.
Discard unused portion.

WARNING: Vecuronium Bromide for Injection may cause respiratory depression. Facilities for artificial respiration must be immediately available.

Usual Dosage: See Package Insert.
Protect from light.
Store at 20° to 25°C (68° to 77°F)
[See USP Controlled Room Temperature].
Teva Parenteral Medicines, Inc., Irvine, CA 92618
Rev. A 10/2011

Y10677

CR

PARALYTIC

Rocuronium (Zemuron®)

Description: Nondepolarizing Neuromuscular Blocker
Indications: Use as an adjunct to general anesthesia to facilitate both rapid sequence and routine tracheal intubation, and to provide skeletal muscle relaxation during surgery or mechanical ventilation.
Contraindications: Known hypersensitivity
Pharmacokinetics
Onset: 1 min
Peak: 3 mins
Duration: 30 mins
Dosage:
Rapid Sequence Intubation: 0.6 to 1.2 mg/kg IV

NDC 65293-426-10
ROCURONIUM BROMIDE
INJECTION
50 mg/5 mL
(10 mg/mL)
For IV Use Only
Rx only
10 x 5 mL
Multiple Dose Vials
Sterile, Nonpyrogenic
Warning: Rocuronium bromide may cause respiratory depression. Facilities for artificial respiration must be immediately available.
Each mL contains: 10 mg rocuronium bromide, 2 mg sodium acetate. Adjusted to isotonicity with NaCl and to a pH of 4 with acetic acid and/or NaOH.
Usual Dosage: See insert.
Storage: Store under refrigeration 2° to 8°C (36° to 46°F). DO NOT FREEZE. Upon removal from refrigeration to room temperature storage conditions (25°C/77°F), use within 60 days. Use opened vials within 30 days.
This container closure is not made with natural rubber latex.
Marketed by: The Medicines Company
Parsippany, NJ 07054
3 65293-426-10 5
42904
LOT/EXP

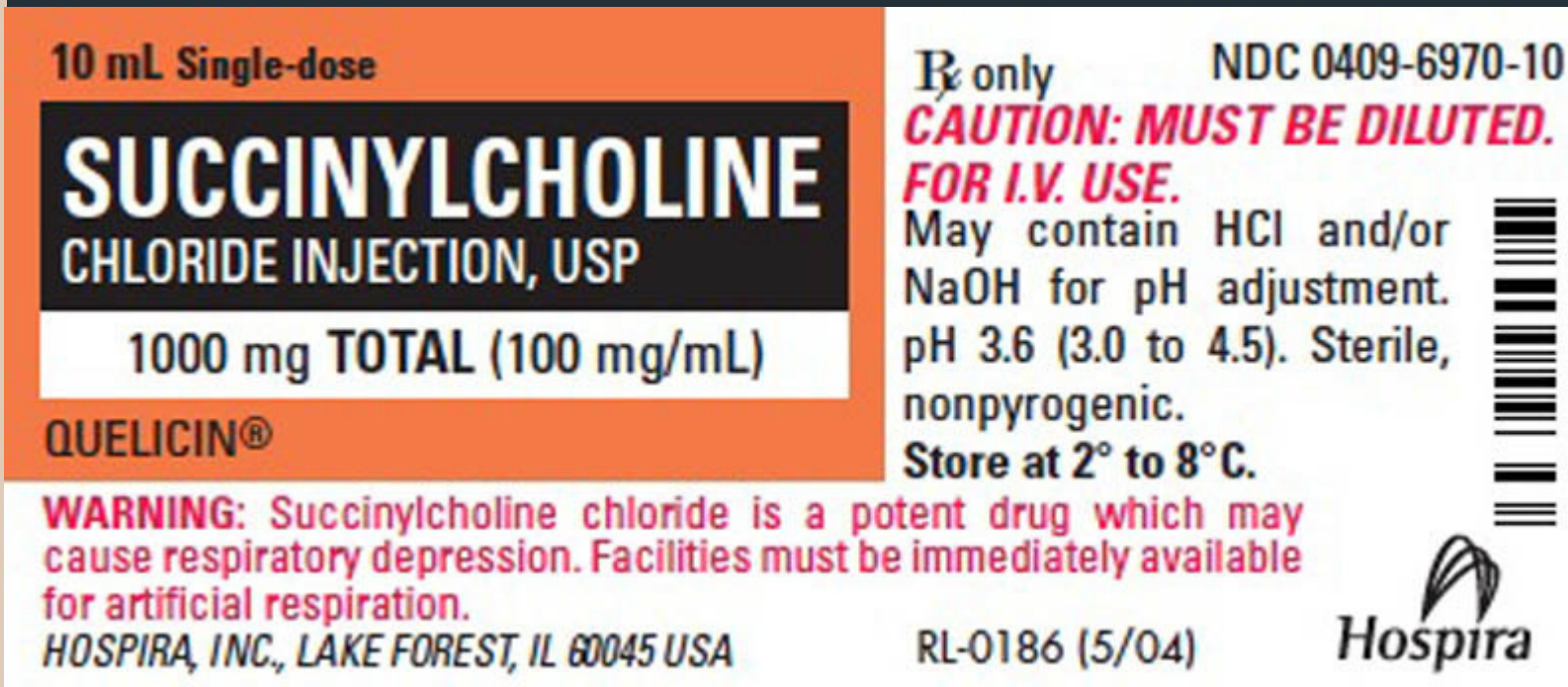
PARALYTIC

CR

Suxamethonium (Quelicin®,Anectine®)

aka Succinylcholine

Description: Depolarizing Neuromuscular Blocking Agent
Indications: Use in surgical procedures where a rapid onset and brief duration of muscle relaxation is needed, including Rapid Sequence Intubation
Contraindications: Hypersensitivity to this drug
Pharmacokinetics
Onset: 30-60 seconds
Peak: 1-2 mins
Duration: <10 mins
Dosage: 1-2 mg/kg IV
3–4 mg/kg IM, Maximum total dose 150 mg (in extremis)


10 mL Single-dose
SUCCINYLCHOLINE
CHLORIDE INJECTION, USP
1000 mg TOTAL (100 mg/mL)
QUELICIN®
℞ only
NDC 0409-6970-10
CAUTION: MUST BE DILUTED.
FOR I.V. USE.
May contain HCl and/or NaOH for pH adjustment. pH 3.6 (3.0 to 4.5). Sterile, nonpyrogenic.
Store at 2° to 8°C.
WARNING: Succinylcholine chloride is a potent drug which may cause respiratory depression. Facilities must be immediately available for artificial respiration.
HOSPIRA, INC., LAKE FOREST, IL 60045 USA
RL-0186 (5/04)
Hospira